In the Claims

- 1-15. (Cancelled)
- bovine against a bovine pathogen, comprising administering into the epidermis, dermis and/or hypodermis of the bovine an immunogenic composition that comprises a plasmid that contains and expresses, in vivo, in a bovine host skin cell, a nucleic acid molecule having a sequence encoding an immunogen of the said bovine pathogen, wherein the nucleic acid molecule is operably linked to a mammalian viral promoter, and wherein administration is by a liquid jet intradermal administration apparatus that administers the composition [[to]]into the epidermis, dermis and/or hypodermis of the bovine, [[:]] without a needle, and into the epidermis, dermis and/or hypodermis; wherein the administration of said composition results in the generation of the immunological response in said bovine.
- 17. (Currently amended) An immunogenic composition for inducing in a bovine host an immunological response against a bovine pathogen comprising a plasmid that contains and expresses in vivo in a bovine host skin cell a nucleic acid molecule having a sequence encoding an immunogen of the said bovine pathogen, wherein the nucleic acid molecule is operably linked to a mammalian viral promoter, and wherein the immunogenic composition is in a liquid jet intradermal administration apparatus that administers the immunogenic composition [[to]]into the epidermis, dermis and/or hypodermis of the bovine, [[:]] without a needle; and into the epidermis, dermis and/or hypodermis.
- 18. (Previously added) The method of claim 16, wherein the apparatus administers the composition at 1-10 points on the bovine.
- 19. (Previously added) The method of claim 16, wherein the apparatus administers the composition at 4-6 points on the bovine.
- 20. (Previously added) The method of claim 16, wherein the apparatus administers the composition at 5 or 6 points on the bovine.
- 21. (Previously added) The method of claim 16, wherein the apparatus administers the composition at 5 points on the bovine.
- 22. (Previously added) The immunogenic composition of claim 17, wherein the apparatus administers the composition at 1-10 points on the bovine.

- 23. (Previously added) The immunogenic composition of claim 17, wherein the apparatus administers the composition at 4-6 points on the bovine.
- 24. (Previously added) The immunogenic composition of claim 17, wherein the apparatus administers the composition at 5 or 6 points on the bovine.
- 25. (Previously added) The immunogenic composition of claim 17, wherein the apparatus administers the composition at 5 points on the bovine.
- 26. (Previously added) The method of claim 16, wherein the bovine pathogen is BRSV.
 - 27. (Previously added) The method of claim 16, wherein the bovine pathogen is IBR.
- 28. (Previously added) The immunogenic composition of claim 17, wherein the bovine pathogen is BRSV.
- 29. (Previously added) The immunogenic composition of claim 17, wherein the bovine pathogen is IBR.
- 30. (Previously added) The method of claim 26, wherein the nucleic acid molecule encodes BRSV G.
- 31. (Previously added) The method of claim 26, wherein the nucleic acid molecule encodes BRSV F.
- 32. (Previously added) The method of claim 27, wherein the nucleic acid molecule encodes IBR gB.
- 33. (Previously added) The immunogenic composition of claim 28, wherein the nucleic acid molecule encodes BRSV G.
- 34. (Previously added) The immunogenic composition of claim 28, wherein the nucleic acid molecule encodes BRSV F.
- 35. (Previously added) The immunogenic composition of claim 29, wherein the nucleic acid molecule encodes IBR gB.
- 36. (Currently amended) A method for vaccinating a bovine against a bovine pathogen comprising administering into the epidermis, dermis and/or hypodermis of the bovine a vaccine that comprises a plasmid that contains and expresses, in vivo, in a bovine host skin cell, a nucleic acid molecule having a sequence encoding an immunogen of said bovine pathogen, wherein the nucleic acid molecule is operably linked to a mammalian viral promoter, and wherein administration is by a liquid jet intradermal administration apparatus that administers the

vaccine [[to]]into the epidermis, dermis and/or hypodermis of the bovine,[[:]] without a needle,; and into the epidermis, dermis and/or hypodermis; wherein the administration of said vaccine results in the generation of an immunological response in said bovine.

- 37. (Currently amended) A vaccine against a bovine pathogen comprising a plasmid that contains and expresses, in vivo, in a bovine host skin cell, a nucleic acid molecule having a sequence encoding an immunogen of said bovine pathogen, wherein the nucleic acid molecule is operably linked to a mammalian viral promoter, and wherein the vaccine is in a liquid jet intradermal administration apparatus that adminsters the vaccine [[to]]into the epidermis, dermis and/or hypodermis of the bovine,[[:]] without a needle; and into the epidermis, dermis and/or hypodermis.
- 38. (Previously added) The method of claim 36, wherein the apparatus administers the composition at 1-10 points on the bovine.
- 39. (Previously added) The method of claim 36, wherein the apparatus administers the composition at 4-6 points on the bovine.
- 40. (Previously added) The method of claim 36, wherein the apparatus administers the composition at 5 or 6 points on the bovine.
- 41. (Previously added) The method of claim 36, wherein the apparatus administers the composition at 5 points on the bovine.
- 42. (Previously added) The vaccine of claim 37, wherein the apparatus administers the composition at 1-10 points on the bovine.
- 43. (Previously added) The vaccine of claim 37, wherein the apparatus administers the composition at 4-6 points on the bovine.
- 44. (Previously added) The vaccine of claim 37, wherein the apparatus administers the composition at 5 or 6 points on the bovine.
- 45. (Previously added) The vaccine of claim 37, wherein the apparatus administers the composition at 5 or 6 points on the bovine.
- 46. (Previously added) The method of claim 36, wherein the bovine pathogen is BRSV.
 - 47. (Previously added) The method of claim 36, wherein the bovine pathogen is IBR.
- 48. (Previously added) The vaccine of claim 37, wherein the bovine pathogen is BRSV.

- 49. (Previously added) The vaccine of claim 37, wherein the bovine pathogen is IBR.
- 50. (Previously added) The method of claim 46, wherein the nucleic acid molecule encodes BRSV G.
- 51. (Previously added) The method of claim 46, wherein the nucleic acid molecule encodes BRSV F.
- 52. (Previously added) The method of claim 47, wherein the nucleic acid molecule encodes IBR gB.
- 53. (Previously added) The vaccine of claim 48, wherein the nucleic acid molecule encodes BRSV G.
- 54. (Previously added) The vaccine of claim 48, wherein the nucleic acid molecule encodes BRSV F.
- 55. (Previously added) The vaccine of claim 48, wherein the nucleic acid molecules encodes IBR gB.
- 56. (Currently amended) A liquid jet intradermal administration apparatus that administers a composition [[to]]into the epidermis, dermis and/or hypodermis of an animal,[[:]] without a needle, and into the epidermis; dermis and/or hypodermis; wherein the apparatus includes an immunogenic composition for inducing in a bovine host an immunological response against a bovine pathogen comprising a plasmid that contains and expresses, in vivo, in a bovine host skin cell, a nucleic acid molecule having a sequence encoding an immunogen of the said bovine pathogen, wherein the nucleic acid molecule is operably linked to a mammalian viral promoter.
- 57. (Previously added) The apparatus of claim 56, wherein the apparatus administers the composition at 1-10 points on the animal.
- 58. (Previously added) The apparatus of claim 56, wherein the apparatus administers the composition at 4-6 points on the animal.
- 59. (Previously added) The apparatus of claim 56, wherein the apparatus administers the composition at 5 or 6 points on the animal.
- 60. (Previously added) The apparatus of claim 56, wherein the apparatus administers the composition at 5 points on the animal.
- 61. (Previously added) The apparatus of claim 56, wherein the bovine pathogen is BRSV.

- 62. (Previously added) The apparatus of claim 56, wherein the bovine pathogen is IBR.
 - 63. (Cancelled)
- 64. (Previously added) The apparatus of claim 56, wherein the nucleic acid molecule encodes BRSV G.
- 65. (Previously added) The apparatus of claim 56, wherein the nucleic acid molecule encodes BRSV F.
- 66. (Previously added) The apparatus of claim 56, wherein the nucleic acid molecule encodes IBR gB.
 - 67. (Cancelled)
- 68. (Previously added) A method for inducing an immunological response in a bovine against a bovine pathogen, comprising administering into the epidermis, dermis and/or hypodermis of the bovine an immunogenic composition that comprises a plasmid that contains and expresses in vivo in a bovine host skin cell a nucleic acid molecule having a sequence encoding an immunogen of the said bovine pathogen, wherein the immunogen is operably linked to a cytomegalovirus (CMV) promoter and is selected from the group consisting of bovine respiratory syncytial virus (BRSV) F protein, BRSV G protein and infectious bovine rhinotracheitis virus (IBR virus) gB protein, by a liquid jet intradermal administration apparatus that administers the composition to the bovine: without a needle; and into the epidermis, dermis and/or hypodermis; wherein the administration of said composition results in the generation of the immunological response in said bovine.
- 69. (Previously added) The method of claim 68, wherein the apparatus administers the composition at 1-10 points on the bovine.
- 70. (Previously added) The method of claim 68, wherein the apparatus administers the composition at 4-6 points on the bovine.
- 71. (Previously added) The method of claim 68, wherein the apparatus administers the composition at 5 or 6 points on the bovine.
- 72. (Previously added) The method of claim 68, wherein the apparatus administers the composition at 5 points on the bovine.
- 73. (Previously added) The method of claim 68, wherein the nucleic acid molecule encodes BRSV G.

- 74. (Previously added) The method of claim 68, wherein the nucleic acid molecule encodes BRSV F.
- 75. (Previously added) The method of claim 68, wherein the nucleic acid molecule encodes IBR gB.
- 76. (Previously added) An immunogenic composition for inducing in a bovine host an immunological response against a bovine pathogen comprising a plasmid that contains and expresses in vivo in a bovine host skin cell a nucleic acid molecule having a sequence encoding an immunogen of the said bovine pathogen, wherein the immunogen is operably linked to a CMV promoter and is selected from the group consisting of BRSV F protein, BRSV G protein and IBR virus gB protein, and wherein the immunogenic composition is in a liquid jet intradermal administration apparatus that administers the immunogenic composition to the bovine: without a needle, and into the epidermis, dermis and/or hypodermis.
- 77. (Previously added) The immunogenic composition of claim 76, wherein the apparatus administers the composition at 1-10 points on the bovine.
- 78. (Previously added) The immunogenic composition of claim 76, wherein the apparatus administers the composition at 4-6 points on the bovine.
- 79. (Previously added) The immunogenic composition of claim 76, wherein the apparatus administers the composition at 5 or 6 points on the bovine.
- 80. (Previously added) The immunogenic composition of claim 76, wherein the apparatus administers the composition at 5 points on the bovine.
- 81. (Previously added) The immunogenic composition of claim 76, wherein the nucleic acid molecule encodes BRSV G.
- 82. (Previously added) The immunogenic composition of claim 76, wherein the nucleic acid molecule encodes BRSV F.
- 83. (Previously added) The immunogenic composition of claim 76, wherein the nucleic acid molecule encodes IBR gB.
- 84. (Previously added) A method for vaccinating a bovine against a bovine pathogen comprising administering into the epidermis, dermis and/or hypodermis of the bovine a vaccine that comprises a plasmid that contains and expresses *in vivo* in a bovine host skin cell a nucleic acid molecule having a sequence encoding an immunogen of said bovine pathogen, wherein the immunogen is operably linked to a CMV promoter and is selected from the group consisting of

BRSV F protein, BRSV G protein and IBR virus gB protein, by a liquid jet intradermal administration apparatus that administers the vaccine to the bovine: without a needle; and into the epidermis, dermis and/or hypodermis, wherein the administration of said vaccine results in the generation of an immunological response in said bovine.

- 85. (Previously added) The method of claim 84, wherein the apparatus administers the composition at 1-10 points on the bovine.
- 86. (Previously added) The method of claim 84, wherein the apparatus administers the composition at 4-6 points on the bovine.
- 87. (Previously added) The method of claim 84, wherein the apparatus administers the composition at 5 or 6 points on the bovine.
- 88. (Previously added) The method of claim 84, wherein the apparatus administers the composition at 5 points on the bovine.
- 89. (Previously added) The method of claim 84, wherein the nucleic acid molecule encodes BRSV G.
- 90. (Previously added) The method of claim 84, wherein the nucleic acid molecule encodes BRSV F.
- 91. (Previously added) The method of claim 84, wherein the nucleic acid molecule encodes IBR gB.
- 92. (Previously added) A vaccine against a bovine pathogen comprising a plasmid that contains and expresses *in vivo* in a bovine host skin cell a nucleic acid molecule having a sequence encoding an immunogen of said bovine pathogen, wherein the immunogen is operably linked to a CMV promoter and is selected from the group consisting of BRSV F protein, BRSV G protein and IBR virus gB protein, and wherein the vaccine is in a liquid jet intradermal administration apparatus that administers the vaccine to the bovine: without a needle; and into the epidermis, dermis and/or hypodermis.
- 93. (Previously added) The vaccine of claim 92, wherein the apparatus administers the composition at 1-10 points on the bovine.
- 94. (Previously added) The vaccine of claim 92, wherein the apparatus administers the composition at 4-6 points on the bovine.
- 95. (Previously added) The vaccine of claim 92, wherein the apparatus administers the composition at 5 or 6 points on the bovine.

- 96. (Previously added) The vaccine of claim 92, wherein the apparatus administers the composition at 5 or 6 points on the bovine.
- 97. (Previously added) The vaccine of claim 92, wherein the nucleic acid molecule encodes BRSV G.
- 98. (Previously added) The vaccine of claim 92, wherein the nucleic acid molecule encodes BRSV F.
- 99. (Previously added) The vaccine of claim 92, wherein the nucleic acid molecules encodes IBR gB.
- administers a composition to an animal: without a needle, and into the epidermis, dermis and/or hypodermis; wherein the apparatus includes an immunogenic composition for inducing in a bovine host an immunological response against a bovine pathogen comprising a plasmid that contains and expresses *in vivo* in a bovine host skin cell a nucleic acid molecule having a sequence encoding an immunogen of the said bovine pathogen wherein the immunogen is operably linked to a CMV promoter and is selected from the group consisting of BRSV F protein, BRSV G protein and IBR virus gB protein.
- 101. (Previously added) The apparatus of claim 100, wherein the apparatus administers the composition at 1-10 points on the animal.
- 102. (Previously added) The apparatus of claim 100, wherein the apparatus administers the composition at 4-6 points on the animal.
- 103. (Previously added) The apparatus of claim 100, wherein the apparatus administers the composition at 5 or 6 points on the animal.
- 104. (Previously added) The apparatus of claim 100, wherein the apparatus administers the composition at 5 points on the animal.
- 105. (Previously added) The apparatus of claim 100, wherein the nucleic acid molecule encodes BRSV G.
- 106. (Previously added) The apparatus of claim 100, wherein the nucleic acid molecule encodes BRSV F.
- 107. (Previously added) The apparatus of claim 100, wherein the nucleic acid molecule encodes IBR gB.